



THE PORT AUTHORITY  
OF NEW YORK AND NEW JERSEY

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No.	Date	Revision	Approved

Engineering Department  
Design Division

The  
World  
Trade  
Center

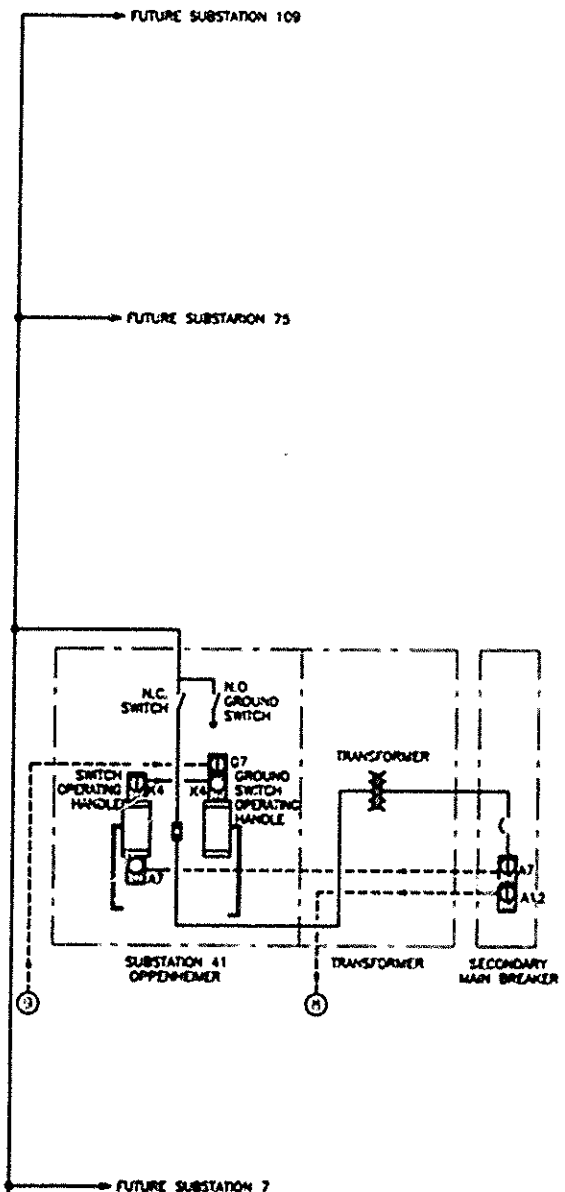
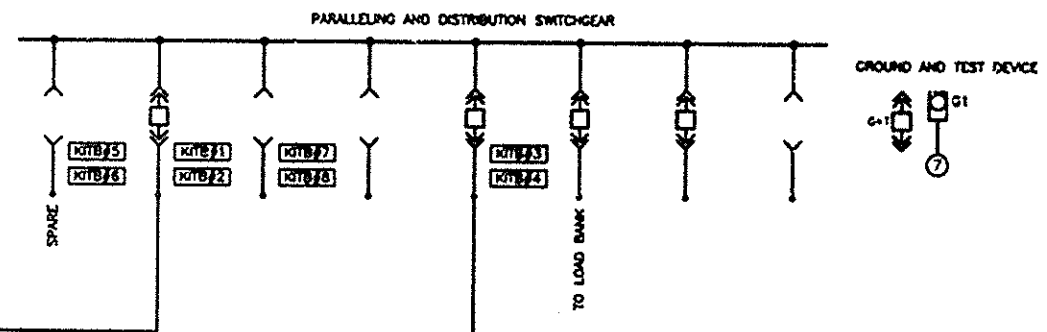
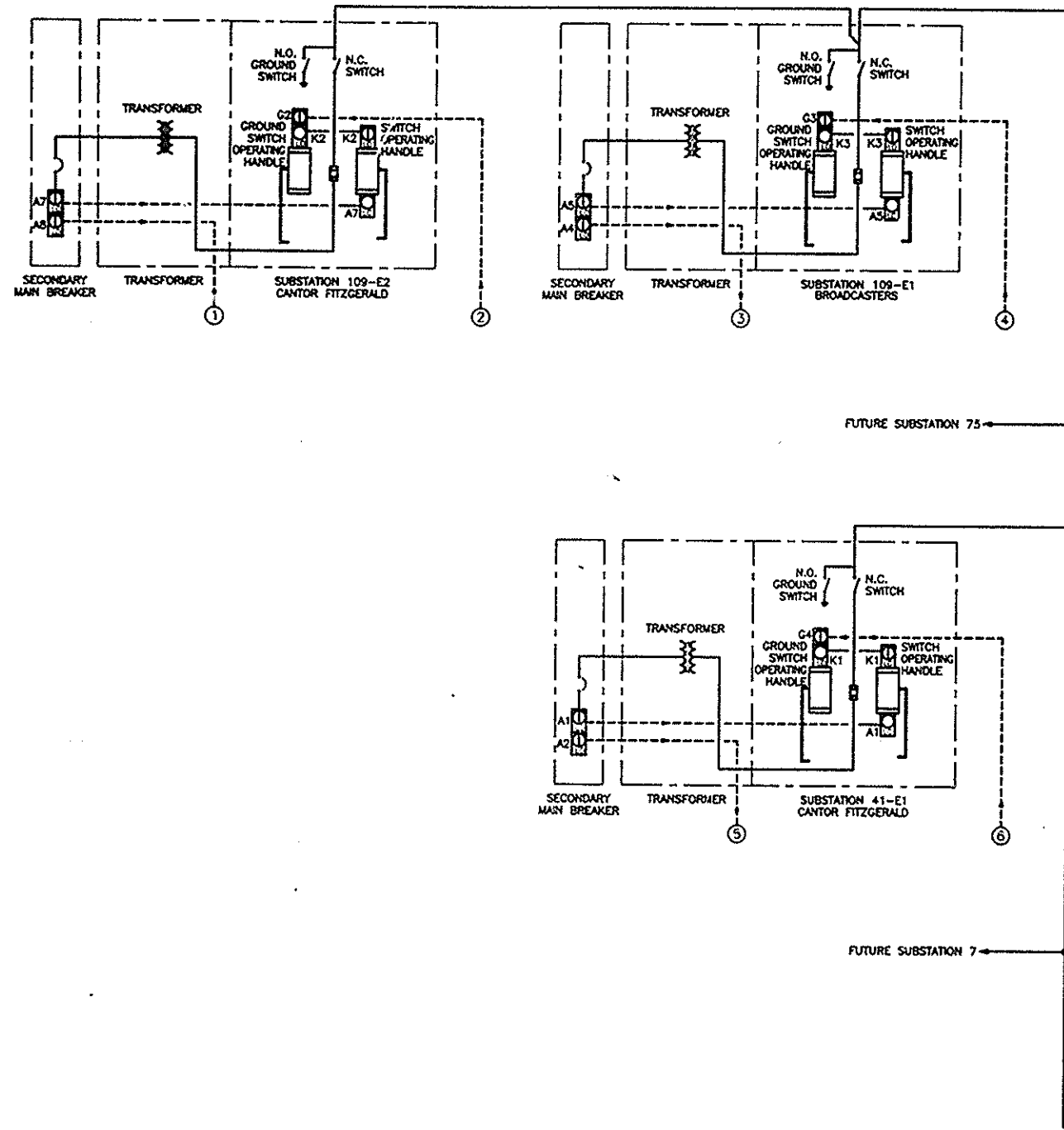
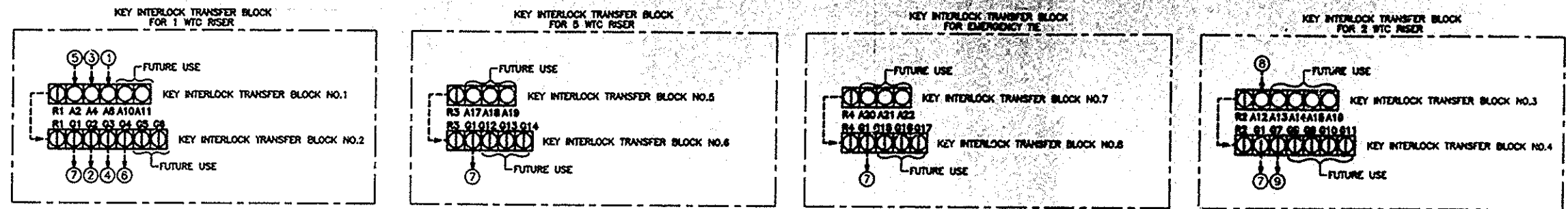
STANDBY POWER  
5 WORLD TRADE CENTER

ELECTRICAL  
KEY INTERLOCK  
SCHEME

This drawing is subject to conditions in contract  
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B.L.M. F.D.  
Designed by Drawn by Check by  
Date 11/17/97 Scale NONE  
Contract Number WTC-945.071 Drawing Number E-04

LEGEND	
○	INDICATES KEY IS REMOVED
①	INDICATES KEY IS KEPT IN LOCK
—	POWER
—	KEY INTERLOCK ROUTING
—	MECHANICAL INTERLOCK



TYPICAL SUBSTATION (109E2)  
INTERLOCK SCHEME

- TO OPEN PRIMARY SWITCH
  - OPEN SECONDARY MAIN BREAKER AND LOCK OPEN. REMOVE KEY A-7 AND INSERT INTO PRIMARY SWITCH.
  - OF C-1 PRIMARY SWITCH.
- TO CLOSE GROUND SWITCH
  - OPEN SECONDARY BREAKER AND PRIMARY SWITCH AS IN 1. ABOVE.
  - REMOVE KEY A-7 AND INSERT INTO TRANSFER BLOCK #1 AT FEEDER CIRCUIT BREAKER AT PARALLELING AND DISTRIBUTION SWITCHGEAR.
  - ALL SUBSTATIONS ON THE FEEDER MUST HAVE SECONDARY BREAKERS AND PRIMARY SWITCHES OPENED, RELEASING RESPECTIVE KEYS, WHICH ARE INSERTED IN TRANSFER BLOCK #1 AT FEEDER CIRCUIT BREAKER.
  - WHEN ALL KEYS ARE INSERTED INTO TRANSFER BLOCK #1, KEY R-1 CAN BE REMOVED AND INSERTED INTO BLOCK #2.
  - KEY G-2 IS RELEASED WHICH CAN BE INSERTED INTO SUBSTATION GROUND SWITCH.
  - KEY K-2, WHICH WAS RELEASED WHEN THE PRIMARY SWITCH WAS LOCKED OPEN, IS INSERTED INTO THE GROUND SWITCH, ALLOWING IT TO BE CLOSED.
  - KEY G-1, ALSO RELEASED, FROM TRANSFER BLOCK #2, IS USED TO RELEASE THE G-1 DEVICE, WHICH CAN BE INSERTED INTO THE FEEDER BREAKER CUBICLE.

NOTES:

- SUBSTATIONS SS102E1, SS109E2 AND SS41E1 ARE EXISTING. EXISTING KEY INTERLOCKS ARE TO BE RETAINED.
- KEY INTERLOCK TRANSFER BLOCKS 1 AND 2 ARE EXISTING AND ARE TO BE RELOCATED FROM EXISTING BROADCASTERS SETUP TRANSFORMER.
- KEY INTERLOCK G1 IS EXISTING AND IS TO BE RELOCATED FROM EXISTING BROADCASTERS TRANSFORMER AND MOUNTED ON G-1 DEVICE.

